

Appl. No. 10/806,916

Amdt. Dated December 19, 2005

Reply to Office Action of September 19, 2005

REMARKS

This is a full and timely response to the non-final Office action mailed September 19, 2005. Reexamination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-28 are pending in this application, with claims 1, 14 and 23 being the independent claims. Claims 5 and 11 have been amended. No new matter is believed to have been added.

Objections to Specification

The specification was objected for informalities. Specifically, the disclosure was objected to for failing to include a term such as "The invention claimed is" (or equivalent). Accordingly, applicant has amended the specification above to add a paragraph reciting "The invention claimed is:". Applicant thus submits that the objection to the specification has been overcome.

Objections to the Claims

Claim 5 was objected to for reciting the "non-linear-output *out put*". Accordingly, applicant has amended claim 5 to remove the terms "out put" and thus submits that this objection to the claims has been overcome.

Rejections Under 35 U.S.C. § 102

Claims 1-8, 10, 11, 14-19, 22-24 and 26-27 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent Application Publication No. 2002/0145610 to Barilovits et al (hereinafter Barilovits). With regard to claim 1, the Examiner stated that Barilovits describes a graphics processor that comprises a linear-output gamma translator, a processor core, and a non-linear output translator. Applicant respectfully disagrees and submits that claim 1 is patentably distinct over the cited reference.

First a note of clarification. Regarding claim 1, the claim recites a "linear-output

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gamma translator translating the received image data into a **substantially linear gamma space**" (emphasis added). See also paragraph [0019] of applicant's specification. Thus, a "linear-output gamma translator" is one that translates into image data that is in the linear gamma space. Likewise, a non-linear output translator is one where the image data is translated into a **non-linear gamma space**. Stated another way, the terms "linear" and "non-linear" identify the **output** of the translators.

In the office action, the Examiner misinterpreted the claimed invention and/or the cited references with regard to this feature. For example, the RGB to YCbCr conversion cited by the Examiner is not consistent with this definition. Specifically, the Examiner cited paragraph [0232] of Barilovits as disclosing a **linear-output gamma translator**. However, that paragraph of Barilovits specifically describes translation from RGB to R'G'B' to YCbCr. While this describes a "linear transformation" of R'G'B' to YCbCr, this does not translate to a "linear gamma space" output. In fact, it is quite the opposite. That is, because the YCbCr output is a linear transformation of the non-linear gamma space R'G'B' (see paragraph [0010] of Barilovits), the YCbCr output is thus also in the non-linear gamma space. In summary, because the YCbCr output is not a linear gamma space output, paragraph 0232 does not disclose a "linear-output gamma translator translating the received image data into a **substantially linear gamma space**".

Likewise, the Examiner misinterprets the art with regard to the processor core limitation. Specifically, claim 1 recites the processor as rendering "the translated image data to create image data". Thus, the recited processor core takes the linear gamma space output of the linear-output gamma translator and renders it. In the office action, the Examiner cites the overlay display engine (ODE) of FIG. 1 and paragraph [0104] as being the "processor core". Applicant respectfully disagrees. Specifically, applicant can find no teaching in Barilovits that the ODE renders a **linear-gamma space output of a translator**. Instead, paragraph [0104] only describes how the ODE reads from memory buffers for merging with graphics display in the primary display engine or fetches an independent stream. There is no description of the ODE rendering a **linear-gamma**

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space output of a translator.

Finally, the Examiner similarly misinterprets the art with regard to the non-linear output translator. While Barilovits does describe some non-linear output translation (e.g., paragraph [0232] of Barilovits), it is not the translation of image data that has been previously translated into a linear gamma space and then rendered.

Thus, applicant submits that claim 1 is patentably distinct over Barilovits. Claim 14 is submitted to be patentably distinct for similar reasons. Furthermore, as claims 2-13 and 15-22 depend from, and include all the limitations of independent claims 1 and 14 respectively, they are also submitted to be patentably distinct.

Furthermore, these dependent claims also include other limitations not found in Barilovits. For example, with regard to claims 3, 4 and 16, the Examiner stated that Barilovits describes where the linear-output gamma translator adds bits when converting from R'G'B' to YCbCr. Again, applicant disagrees and again notes that the conversion from R'G'B' to YCbCr is not a linear-gamma space output translation, and thus there is no linear-gamma space output with a higher bit representation.

As another example, with regard to claims 10 and 22, applicant fails to see in Barilovits any description of a transformation to a linear-gamma space occurring during a memory read. Specifically, applicant does not see how "color promotion" described in paragraph [0029] can comprise a linear-gamma space output transformation that occurs during a memory read. Instead, the color promotion seems only to deal with the transformation of the number of bits per pixel.

As a final example, with regard to claim 12, applicant can find no teaching that the recited alpha blending, anti-aliasing and video merge are performed on the image data in the substantially linear gamma space. Again the portion of Barilovits cited by the Examiner fails to teach such a transformation, or that any of these activities are performed

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on such transformed image data.

Applicant further submits that independent claim 23 is patentably distinct over the cited Barilovits for same reasons as given above with respect to claims 1, 4, 5 and 10. Furthermore, as claims 24-28 depend from, and include all the limitations of independent claim 23, they are also submitted to be patentably distinct.

Rejections Under 35 U.S.C. § 103

Applicant notes that the various rejections of the dependent claims under § 103 all rely upon the same mischaracterization of the Barilovits reference. Applicants thus submit that these rejections fail for the same reasons.

Conclusion

Based on the above, independent claims 1, 14 and 23 are patentable over the citations of record. The dependent claims are also submitted to be patentable for the reasons given above with respect to the independent claims and because each recite features which are patentable in its own right. Individual consideration of the dependent claims is respectfully solicited.

The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

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If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

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